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Psychometric Properties of the Polish Version of the Social and Emotional Loneliness Scale for Adults (SELSA-S)

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Abstract

The development and validation of the Polish-language version of the Social and Emotional Loneliness Scale for Adults (SELSA-S; DiTommaso, Brannen, & Best, 2004) is described in this article. The aim of this study was to translate the SELSA-S into Polish and establish its psychometric properties. A total of 417 university students (262 women and 155 men) aged 19-25 years completed the Polish adaptation of the SELSA-S (SELSA-SPL), and several other measures. All three subscales of the SELSA-SPL showed good internal consistency. Correlations between these three subscales and indicators of psychological functioning demonstrated similar patterns to those of the SELSA-S. Exploratory and confirmatory factor analyses confirmed that the structure of the SELSA-SPL was consistent with the original version. The results from the present study indicate that the Polish version of the SELSA-S is a reliable and valid multidimensional measure of loneliness.

Keywords: adult assessment, loneliness, SELSA-S, Polish adaptation

Introduction

Empirical interest in loneliness began in the early 1980s, and today it continues to be a topic of research and clinical focus (see Heinrich & Gullone, 2006; Rokach, 2013). Loneliness is a subjectively unpleasant and distressing feeling with potentially serious consequences (Heinrich & Gullone, 2006; Peplau & Perlman, 1982). One factor that stimulated theoretical and research interest in loneliness was Weiss' typology of social and emotional loneliness. Weiss (1973,

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1987, 1998) was the first to describe loneliness as a multidimensional experience and proposed a distinction between social loneliness as a result of an inadequate access to social relationships such as a network of peers, co-workers, neighbours, or friends, and emotional loneliness perceived as a lack of close or intimate relationships which are characteristic of ties with a romantic partner, parent, or child.

On the basis of Weiss' (1973) distinction between the experience of social isolation (social loneliness) and emotional isolation (emotional loneliness), DiTommaso and Spinner (1993, 1997) developed a 37-item, multidimensional measure of loneliness, namely the Social and Emotional Loneliness Scale for Adults (SELSA). The authors also noted that emotional loneliness appeared to be comprised of two domains, that is, family emotional loneliness and romantic emotional loneliness. In order to enable clinicians and researchers to use this multidimensional measure of loneliness more effectively, DiTommaso et al. (2004) developed a shorter, psychometrically sound version of the SELSA. The shorter, 15-item version, known as the SELSA-S, was tested using a Canadian sample that consisted of different ages (range 17-74; $M=23.14$, $SD=7.42$) and populations (university students, partners of armed forces personnel, and psychiatric patients). Results from exploratory and confirmatory factor analyses indicated that the reliability and validity of the short version of the SELSA was comparable to the full version of the SELSA (DiTommaso et al., 2004).

The motivation to develop the Polish version of the SELSA-S was twofold. First, no scale exists in Polish that assesses the multidimensional nature of loneliness. Second, the solid psychometric properties and optimal length of the SELSA-S made it appealing for adaptation. The main purpose of this study was to develop and validate a Polish adaptation of the Social and Emotional Loneliness Scale for Adults (SELSA-SPL). The factorial structure, psychometric properties, and associations with indicators of psychological functioning such as anxiety, perceived social support, satisfaction with life and current involvement in a romantic relationship of the SELSA-SPL were all assessed. The results were also compared to those of the original scale, as well as other versions, namely the French-Canadian and Turkish translations. It was predicted that the three-dimensional structure of the Polish version of the SELSA-S would be confirmed, and it was hypothesized that the Polish version would be a reliable measure of loneliness. Finally, all the above evidence would provide further support for the psychometric integrity of the SELSA-S.

Methods

The adaptation process of the Polish-language version of the SELSA-S was performed in the following three stages: (1) translation of the English-language version of the SELSA-S into Polish, (2) testing the psychometric equivalence of the Polish and English versions of the SELSA-S, and (3) verification of the factor structure, and the concurrent and discriminant validity of the Polish version of the SELSA-S.

Translation Procedure and Psychometric Equivalence Assessment of English and Polish Versions of the SELSA-S

To create the Polish version of the SELSA-S, all of the items were translated into Polish by three independent translators who were competent in both written and spoken English and had experience in social and psychological research. The translated forms were reviewed by the author and a native English speaker, and then compared to each other in terms of the content and clarity of the items. In addition, the Polish form was reviewed by one Polish linguist to assess the appropriateness of the grammatical structure of each item. As a result, the Polish version was created and first applied to a small sample of university students ($n=34$) who were instructed to indicate any confusing words or sentences. Subjective feedback revealed that some of the items were not clear and comprehensible. The problematic items were evaluated and corrected to ensure that all were understandable. The final Polish version was back-translated into English by three different experienced translators.

The back-translation resulted in a version highly similar to the original scale, which as an experimental version was used in the second phase of research on a bilingual group of English Philology students from The School of English, Adam Mickiewicz University in Poznan, Poland. In this phase 105 students (75 females and 30 males) aged 19-25 participated. The student sample completed the short form of both the English and Polish SELSA-S in a counterbalanced order to ascertain the effectiveness of the translation. In order to minimize item recall, a one-month interval separated the completion of each version. The English version was completed in December, 2011. One month later, students completed the Polish version. Participants completed the two questionnaire forms during their classes. The whole procedure lasted about 15 minutes. A series of paired t tests comparing the two forms at the item and subscale levels revealed no significant differences between the two measures. They were highly correlated: Romantic, $r=.89$, $p<.01$, Family, $r=.81$, $p<.01$, Social, $r=.80$, $p<.01$. Therefore, the Polish version of the SELSA-S was judged to be an effective translation of the scale.

Participants and Procedure

The study was carried out on a sample of university students from different faculties of Adam Mickiewicz University in Poznan, Poland. Data were collected via self-report measures from a total sample of 417 university students: 262 females (62.80%) and 155 males (37.20%). Participants were 19-25 years old ($M=21.14$, $SD=2.05$), resided mainly in large Polish cities with a population exceeding 500,000 inhabitants. Two hundred and eighteen students (52.30%) declared being in a romantic relationship at the time of the assessment whilst 199 students (47.70%) were not.

The first author distributed the measures to the participants across the different courses. The questionnaire packages were administered in classrooms to groups of 20 to 30 students at a time and participation was voluntary. The purpose of the study was explained to students. The students were assured that the information provided would remain anonymous and confidential. The instructions were read aloud. Participants completed a demographic questionnaire and a package of measures. In order to minimize the possible influence of the order of questionnaire presentation, the Polish version of the SELSA-S appeared equally often in each ordinal position. Completing the questionnaire package took approximately 20 minutes.

Measures

The questionnaire package completed by the participants was comprised of the following instruments:

Demographic Questionnaire. This questionnaire was designed to obtain general descriptive information such as age, gender, faculty and current relationship status.

The Social and Emotional Loneliness Scale for Adults - Short Form (SELSA-S; DiTommaso et al., 2004) (Polish Adaptation; SELSA-SPL). The SELSA-S is a multidimensional measure of loneliness. It consists of 15 items designed to measure emotional (romantic and family) and social loneliness. The items are rated on a 7-point scale, ranging from 1 - *strongly disagree* to 7 - *strongly agree*. High SELSA-S scores indicate high levels of emotional and social loneliness. The SELSA-S's three subscales have high internal reliability, with Cronbach's alphas ranging from .87 to .90, and have been shown to be a valid measure of loneliness (DiTommaso et al., 2004).

The Revised UCLA Loneliness Scale (UCLA-R; Russell, Peplau, & Cutrona, 1980) (Polish adaptation; Rembowski, 1992). The Revised UCLA Loneliness Scale is a 20-item global measure of subjective feelings of loneliness and of social isolation. Participants are asked to indicate how often each of the statements is descriptive of

them and rate each item as either Often - O ("*I often feel this way*"), Sometimes - S ("*I sometimes feel this way*"), Rarely - R ("*I rarely feel this way*"), and Never - N ("*I never feel this way*"). The UCLA Loneliness scale has been found to have a high internal consistency (coefficient alpha .96 and high test-retest reliability of .94). In the present study, the UCLA-R had high internal reliability ($\alpha=.88$).

The State-Trait Anxiety Inventory (STAI; Spielberger, 1983) (Polish adaptation; Spielberger, Strelau, Tysarczyk, & Wrześniewski, 2006). This inventory has both State and Trait scales. Each scale consists of 20 items that are rated on a 4-point Likert scale, ranging from *not at all* to *very much so* for the STAI State and from *almost never* to *almost always* for the STAI Trait. The STAI has excellent internal reliability ($\alpha=.90$) and has been shown to be a valid measure of both situational and trait anxiety (Spielberger et al., 2006). The Cronbach's alphas in the present study were .90 for the State and .88 for the Trait anxiety scales.

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) (Polish adaptation; Adamczyk, 2013). This scale is a 12-item self-report instrument designed to assess a person's perception of the adequacy of social support from three sources: friends, family and significant others. There are four items per subscale, each with response options ranging from 1 - *very strongly disagree* to 7 - *very strongly agree*. The internal consistency for the total scale and the subscales are high, ranging between .79 and .98 within various samples. In the present study the Cronbach's alphas were .94 for friends, .89 for family, and .90 for significant others.

Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) (Polish adaptation; Juczyński, 2009). This scale measures an individual's satisfaction with his/her life. The SWLS uses a 7-point Likert scale, ranging from 1 - *strongly disagree* to 7 - *strongly agree*, yielding a possible score range of 5 (low life satisfaction) to 35 (high life satisfaction). The scale's internal consistency was high ($\alpha=.87$) and two week test-retest reliability was $r=.85$. The Cronbach's alpha in the current study was .82.

Data Analysis

First, the factorial structure of the Polish adaptation of the SELSA-S was investigated by conducting a principal components analysis and confirmatory factor analyses. Second, psychometric properties of the scale were determined. Third, the association between the Polish version of the SELSA-S and constructs of psychological functioning such as anxiety, perceived social support, satisfaction with life and information on respondents' commitment in an intimate relationship was assessed.

Results

Exploratory Factor Analysis

In order to compare findings concerning the factorial structure of the present study with the results from the original study by DiTommaso et al. (2004), an exploratory factor analysis with Varimax rotation with Kaiser Normalization was performed on the data. The Kaiser-Meyer-Olkin index of adequate sampling was .82 for the sample and indicated that the data represented a homogeneous collection of variables that were suitable for factor analysis. Barlett's test of sphericity was significant for the sample, $\chi^2=3490.96$, $df=105$ $p<.001$, which indicated that the set of correlations in the correlation matrix were significantly different from zero and suitable for factor analysis. Similarly to the results obtained in DiTommaso et al.'s (2004) original study, an exploratory factor analysis extracted three distinct factors. This analysis resulted in four eigenvalues greater than 1 ($\lambda=4.50, 2.86, 2.24, 1.10, 0.91, 0.64, 0.50, 0.49, 0.42, 0.32 \dots$). However, an examination of the Scree plot and percentage of variance explained indicated that a three-factor solution best represented the structure of the SELSA-SPL. In addition, performed analysis indicated that the fourth factor did not represent an essential, distinctive aspect of loneliness. Therefore, based on both statistical and theoretical reasons we adopted the 3-factor model. The three factors explained 64% of the total variance, and displayed clear loadings of the items on the respective scales (all $>.40$) consistent with the SELSA-S. The items, loadings and variance for the three factors of the Polish version of SELSA-S (i.e., SELSA-SPL) are presented in Table 1.

Table 1. *Items and Varimax Rotated Factor Loadings for the SELSA-SPL*

Items/Subscales	Factor		
	1	2	3
Percent of Variance Explained	22.75	20.82	20.41
Family Loneliness Subscale			
1. Czułem się samotny, kiedy byłem z moją rodziną.	.65	.19	.08
4. Nie miałem nikogo w mojej rodzinie, na kogo wsparcie i zachętę mógłbym liczyć, ale chciałbym mieć taką osobę. ^a	.74	.11	.15
8. Czułem, że miałem bliskie relacje z moją rodziną. ^a	.87	.02	.14
11. Czułem się częścią mojej rodziny. ^a	.90	.02	.11
12. Moja rodzina naprawdę troszczyła się o mnie.	.88	.02	.11
Romantic Loneliness Subscale			
3. Miałem partnerkę, z którą dzieliłem się moimi najbardziej intymnymi myślami i uczuciami. ^a	.05	.89	.03
6. Miałem partnerkę lub współmałżonkę, która dawała mi wsparcie i zachętę, jakich potrzebowałem. ^a	.02	.93	.02
10. Żałuję, że nie miałem bardziej satysfakcjonującego związku partnerskiego.	.14	.66	.01

Table 1. – *Continued.*

Items/Subscales	Factor		
	1	2	3
Percent of Variance Explained	22.75	20.82	20.41
Romantic Loneliness Subscale			
14. Miałem partnerkę, do której szczęścia się przyczyniłem. ^a	.01	.86	.10
15. Miałem niezaspokojoną potrzebę bycia w bliskim związku partnerskim.	.16	.41	.13
Social Loneliness Subscale			
2. Czuję się częścią grupy przyjaciół. ^a	.10	.06	.73
5. Czuję, że moi przyjaciele rozumieją mnie oraz motyw myjego postępowania. ^a	.17	.20	.80
7. Nie miałem przyjaciela (przyjaciół), którzy podzielaliby moje poglądy, ale chciałbym mieć takich przyjaciół.	.07	.02	.72
9. Mogłem liczyć na moich przyjaciół, kiedy potrzebowałem pomocy. ^a	.14	.05	.81
13. Nie miałem przyjaciół, którzy by mnie rozumieli, ale chciałbym mieć takich przyjaciół.	.10	.06	.77

Note. ^a Reverse scoring on these items.

As can be seen in Table 1, 15 items exhibited high loading in the factors for which they were intended and they loaded on the same subscales as in the original SELSA-S. The latter results were in line with those of DiTommaso et al.'s (2004) original study. Factor 1 represents dealing with family loneliness and accounted for 22.75% of the common variance. While Factor 2 represents dealing with romantic relationships and was interpreted as reflecting romantic loneliness. It accounts for 20.82% of the common variance. Lastly, Factor 3 represents social loneliness and accounts for 20.41% of the common variance. These results are similar to those obtained in the original study, and indicated that the three subscales of the Polish version of the SELSA-S have good structural stability.

Confirmatory Factor Analysis

To examine the adequacy of the three-factor structure that was achieved through exploratory factor analysis, a confirmatory factor analysis (CFAs) was performed for the 15-item scale via Amos version 18. The hypothesized model was comprised of three first-order latent variables representing three subscales, with each variable having 5 (social), 5 (family) and 5 (romantic) indicators. Goodness-of-fit indices for the three-factor model in the present study were as follows: $\chi^2=392.93$ ($df=87$, $p<.001$), $\chi^2/df=4.52$, RMSEA=.08, Standardized RMR=.04, GFI=.89, CFI=.93, IFI=.93, NFI=.92, and RFI=.90. Overall, the fit indices in this study indicated that the model provided a good fit to the data (Bentler, 1990; Duru, 2007; Newsom, 2012). Thus, the hypothesized three-factor structure of the Polish version of the SELSA-S was confirmed. The latter structure has also been found in

other language versions of the SELSA-S (e.g., DiTommaso, Turbide, Poulin, & Robinson, 2007). The correlations between factors are displayed in Table 2.

Table 2. *Correlations Between Factors of the Polish Version of the SELSA-S*

	Family	Romantic
Family	-	.07
Social	.33***	.18***

*** $p < .001$.

As Table 2 indicates, the three factors of the Polish version of the SELSA-S are basically orthogonal.

Psychometric Properties of the SELSA-S

Reliability

Cronbach's reliability coefficients for the three SELSA-SPL subscales ranged from .83 to .87 (see Table 3).

As indicated in Table 3, the coefficient alpha values for three subscales were comparable to those obtained in the original study (DiTommaso et al., 2004), and in studies on the French-Canadian adaptation (DiTommaso et al., 2007), and Turkish adaptation (Çeçen, 2007).

Table 3. *Internal Reliability (Cronbach's α) Comparison of SELSA-S Subscales Across the Current and Three Other Studies*

SELSA-S Subscales	DiTommaso et al. (2004)	DiTommaso et al. (2007)	Çeçen (2007)	Present study
Romantic	.87	.89	.83	.83
Family	.89	.83	.76	.87
Social	.90	.84	.74	.84

Means and Standards Deviations

The means and standard deviations for the social, family, romantic, and total SELSA-S scores are presented in Table 4.

Table 4. *Means and Standard Deviations of the SELSA-S Subscales Across the Current and Three Other Studies*

SELSA-S Subscales		Romantic			Family			Social		
		Men	Women	Total sample	Men	Women	Total sample	Men	Women	Total sample
DiTommaso et al. (2004)	<i>M</i>	18.00	15.20	16.00	13.60	12.70	13.00	14.90	14.70	14.80
	<i>SD</i>	8.90	9.10	9.10	7.20	7.70	7.60	8.00	8.40	8.30
DiTommaso et al. (2007)	<i>M</i>	16.50	15.50	17.00	12.00	11.00	11.50	12.50	11.50	11.50
	<i>SD</i>	10.50	10.00	10.50	7.00	6.00	6.50	6.50	6.00	6.00
Çeçen (2007)	<i>M</i>	19.60	18.60	19.00	13.50	12.90	13.20	14.50	13.00	13.60
	<i>SD</i>	9.00	9.70	9.40	6.30	6.50	6.40	6.00	6.80	6.50
Present study	<i>M</i>	15.80	18.50	17.50	13.70	13.20	13.40	13.70	12.20	12.80
	<i>SD</i>	8.50	9.30	9.20	6.50	7.20	7.00	6.20	6.30	6.30

The highest mean in the present study was reported on the romantic subscale ($M=17.50$) as was in the original English and other language versions of the scale. On the romantic loneliness subscale the mean for the current sample was higher for women ($M=18.45$, $SD=9.25$) than for men ($M=15.77$, $SD=8.84$), $t(415)=2.90$, $p<.01$, and on the social loneliness scale the mean was higher for men ($M=13.69$, $SD=6.15$) than for women ($M=12.21$, $SD=6.33$), $t(415)=2.33$, $p<.05$. No gender differences were observed on the family loneliness subscale between women ($M=13.20$, $SD=7.19$) and men ($M=13.76$, $SD=6.64$), $t(415)=0.66$, $p>.05$.

Intercorrelations

To ensure comparability with DiTommaso et al. (2004) and/or DiTommaso et al. (2007) and Çeçen (2007), correlations between the subscales were also assessed. Table 5 displays a comparison of the results of the three studies.

Table 5. *Correlations Between the SELSA-S Subscales Across the Current and Three Other Studies*

DiTommaso et al. (2004)				DiTommaso et al. (2007)			Çeçen (2007)			Present study		
SELSA-S Subscales												
SELSA-S Subscales	R	F	S	R	F	S	R	F	S	R	F	S
Romantic	-	.21	.17	-	.18	.26	-	.12	.21	-	.15*	.17**
Family		-	.26		-	.42		-	.27		-	.30**

Note. R – Romantic; F – Family; S – Social.

* $p<.05$; ** $p<.01$.

As Table 5 shows, although in the current study all three subscales were positively and significantly correlated with each other, it is also evident that they

are distinct constructs. This pattern of intercorrelations among the subscales appears to be consistent across the other studies.

Concurrent and Discriminant Validity

To assess the validity of the SELSA-SPL subscales, the relationship between the SELSA-SPL and the other measures (i.e., loneliness measured by UCLA-R, anxiety, perceived social support, satisfaction with life, and current relationship status) was evaluated (see Table 6). It was hypothesized that all three subscales of the Polish version of the SELSA-S would be positively correlated with the Polish version of the UCLA-R. It was also anticipated that all three subscales of the Polish version of the SELSA-S would be significantly positively correlated with the STAI (trait and state anxiety), and would be negatively correlated with perceived social support, and life satisfaction. In addition, it was expected that current relationship status would differentiate the levels of loneliness reported by respondents.

Table 6. *Correlations of the SELSA-SPL Subscales With Individual Difference Measures*

Variables	Loneliness - SELSA-SPL		
	Family	Romantic	Social
Loneliness - UCLA-R	.43**	.23**	.66***
Anxiety			
State	.36*	.29*	.30*
Trait	.41*	.31*	.40*
Perceived Social Support			
Family Support	-.78**	-.04	-.19**
Friends Support	-.20**	-.05	-.71**
Significant Other Support	-.31**	-.47**	-.37**
Satisfaction with life	-.18***	-.17***	-.20***

* $p < .05$; ** $p < .01$; *** $p < .001$.

As can be seen in Table 6, all of the correlations of the SELSA-S subscales with the analyzed variables were in the expected direction, indicating that greater loneliness in the three domains was related to higher levels of loneliness measured by UCLA-R, higher level of trait and state anxiety, and lower reported levels of perceived social support and life satisfaction.

In addition, respondents who were single obtained higher scores on romantic loneliness ($M=23.74$, $SD=7.40$) than those with romantic partners ($M=11.71$, $SD=6.50$), $t(415)=17.58$, $p < .001$. Furthermore, single individuals reported higher levels of family loneliness ($M=14.14$, $SD=7.29$) than did those with romantic partners ($M=12.68$, $SD=6.64$), $t(415)=2.14$, $p < .05$. However, no significant differences emerged between the groups with regards to reported social loneliness, $t(415)=.07$, $p > .05$.

Discussion

The fact that the SELSA-S is a multidimensional measure of loneliness and the lack of such a measure of loneliness in Poland spurred the adaptation of the SELSA-S. The purpose of this study was two-fold: firstly, to adapt the SELSA-S into Polish and secondly, to examine its psychometric properties. The current findings demonstrate that with regards to factor structure, reliability and associations with indicators of psychological functioning, the Polish adaptation behaves similarly to the original English and other language versions of the SELSA-S.

An examination of the factor structure shows that the 15 items of the SELSA-SPL loaded as expected. Thus, the exploratory factor analysis of the Polish translation of the SELSA-S scales confirmed the original scale structure. Confirmatory factor analysis yielded results similar to those obtained by the original English version, as well as the full-length SELSA, the French-Canadian, and Turkish adaptations of the SELSA-S. The RMSEA values of approximately .08 showed a reasonable fit comparable to the original English version of the SELSA-S, the CFI values higher than .90 indicated an adequate fit with models that include 5 items per factor for the three-factor model. With respect to reliability, internal consistency coefficients of the three SELSA-SPL scales were very good and were comparable to those obtained using the original English and other language versions.

The intercorrelations of the SELSA-SPL subscales were generally comparable with the pattern found in the original English version, and also with the French-Canadian, and Turkish adaptations (Çeçen, 2007; DiTommaso et al., 2004; DiTommaso et al., 2007). The low intercorrelations between the three SELSA subscales (romantic, family and social loneliness), and the high Cronbach's alpha coefficient for the subscales support the existence of three distinct dimensions of loneliness, although they have a common core.

Additionally, results indicated that the three subscales displayed high levels of concurrent validity. There were statistically significant correlations between each subscale and the UCLA-R (Russell et al., 1980). The strongest relationship was found between the social loneliness subscale and the UCLA-R. This pattern is consistent with previous studies conducted by DiTommaso and co-workers (1993, 2004, 2007) and Çeçen (2007).

Additional evidence for the high correspondence between the Polish adaptation of the SELSA-S scales and the original English, French-Canadian, and Turkish versions emerges from the pattern of associations between loneliness measured by the SELSA-S and other variables such as anxiety, perceived social support, life satisfaction and current involvement in a romantic relationship. It was hypothesized that the Polish version of the STAI would correlate significantly with the SELSA-SPL. This prediction was partially confirmed: significant, but moderate

correlations with anxiety were obtained between the family, social, and romantic loneliness subscales.

As predicted, family loneliness and perceived support from family were negatively correlated, the same as romantic loneliness and perceived support from significant others. Moreover, higher levels of social loneliness were associated with less perceived social support. These results are consistent with those of previous research (e.g., Çeçen, 2007) suggesting that greater reported loneliness is associated with lower perceived social support. With regard to satisfaction with life, all three SELSA-SPL subscales were moderately associated in the expected directions, namely greater loneliness has been associated with less satisfaction with life (DiTommaso et al., 2004).

The final evidence of concurrent validity of the SELSA-S scales are the results indicating that romantic loneliness was highly correlated with current relationship status. The latter is consistent with findings reported by other researchers (Çeçen, 2007; DiTommaso et al., 2004; DiTommaso & Spinner, 1993; Russell, Cutrona, Rose, & Yurko, 1984) and congruent with the expectation that emotional (romantic) loneliness might be predicted by deficits in romantic and dating relationships.

The present study was not without its limitations. One limitation was the self-report method of the assessment of loneliness. In future research, it would be important to use another method of assessment such as interviews. It would also be useful to assess the factorial structure and psychometric properties of the Polish version of the SELSA-S using more diverse Polish populations including samples of psychiatric and older individuals to better gauge the generalizability of the SELSA-SPL. Even though this study showed the SELSA-SPL to have good initial psychometric properties, additional research is needed to fully evaluate and further refine it (e.g., by examining its relationship to attachment, interpersonal competence and relationship quality measures).

In conclusion, these limitations notwithstanding, the present study provides evidence that the 15-item version of the Polish adaptation of the Social and Emotional Loneliness Scale for Adults (SELSA-SPL) possesses psychometric properties comparable to the original English, and other language versions. The SELSA-SPL was shown to be a reliable and valid measure for emotional and social loneliness in a sample of Polish adults. Additionally, the development of this new adaptation has provided further validation for the SELSA-S. Finally, these results provide evidence in support of Weiss' (1973) typology of loneliness and indicate the importance of differentiating between the different types of loneliness.

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Psihometrijske karakteristike poljske verzije Ljestvice socijalne i emocionalne osamljenosti za odrasle (SELSA-S)

Sažetak

U ovom je članku opisan razvoj i validacija Ljestvice socijalne i emocionalne osamljenosti za odrasle (SELSA-S; DiTommaso, Brannen i Best, 2004) na poljski jezik. Cilj je ovoga istraživanja bio prevesti SELSA-S na poljski i utvrditi njezine metrijske karakteristike. Ukupno je 417 sveučilišnih studenata (262 djevojke i 155 mladića), raspona dobi 19-25 godina, ispunilo poljsku prilagodbu SELSA-S (SELSA-SPL) i nekoliko drugih mjera. Sve su tri podljestvice SELSA-SPL pokazale dobru pouzdanost tipa unutarnje konzistencije. Korelacije između tih triju podljestvica i indikatora psihološkoga funkcioniranja pokazuju slične obrasce kao što su oni u ljestvici SELSA-S. Eksploratorna i konfirmatorna faktorska analiza potvrdile su da je struktura SELSA-SPL konzistentna originalnom obliku. Rezultati ovoga istraživanja pokazuju da je poljska verzija SELSA-S pouzdana i valjana multidimenzionalna mjera osamljenosti.

Ključne riječi: procjena odraslih, osamljenost, SELSA-S, poljska adaptacija (SELSA-SPL)

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